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EXAMINER	
HAJNIK, DANIEL F	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/811,071	FENNEY ET AL.	
	Examiner	**Art Unit**	
	DANIEL F. HAJNIK	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _7/25/2008_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-3,5-12 and 14-20_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-3,5-12 and 14-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _26 March 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/25/2008 has been entered.

Foreign Priority Document

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the United Kingdom on 3/27/2003. It is noted, however, that applicant has not filed a certified copy of application United Kingdom 0307095.0 as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-12, 14-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-9 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a

particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled “Clarification of ‘Processes’ under 35 U.S.C. 101”). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Claims 10-12, 14-20 are directed to non-statutory subject matter. That is, the claims are directed to an apparatus, where the body of the claim contains components which are all software based. This interpretation is based upon evidence in the specification on the top of page 10. The claimed components are software or program codes which are essentially a data structure, per se. Data structures are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 5, 10-12, 14, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redshaw et al. (GB Patent 2,343,603) in view of Deering (US Patent 6,624,823).

As per claim 1, Redshaw teaches the claimed:

1. A method for culling small objects in a system for shading 3-dimensional computer graphics images, comprising the steps of *(pg. 2, lines 6-11, "if only data pertaining* ***to portions of surfaces*** *which* ***are*** *in fact* ***visible*** *is processed. Thus, in accordance with a preferred embodiment of the invention we provide a method for* ***defining the edges of visible surfaces*** *with planes which are perpendicular to the viewing direction")*:

subdividing a display on which an image is to be viewed into a plurality of rectangular areas *(in figure 6 where a grid of areas is shown)*;

deriving a list of objects in the image which may be visible in that rectangular area *(in figure 5, piece 32, "Object Lists" and pg. 2, lines 21-23, "A* ***display list*** *of the surfaces* ***which fall within that tile*** *is used to define objects within the bounding box")*;

determining maximum and minimum values for an object in the list in in x and y directions *(in figures 6 and 7-10 where each figure shows a set of tiles established based upon the maximum and minimum values for an object; in order to have determined the tiles shaded in the figures, the system would have to know the maximum and minimum values for the object)*;

Redshaw does not explicitly teach the remaining claim limitations.

Deering teaches the claimed:

determining a set of sampling points from the object from the maximum and minimum values *(in figure 13E where a minimal bin bounding box is determined from the maximum and minimum values of the object, i.e. the triangle and col 21, lines 33-41, "determine a subset of spatial bins which,* ***based on their position*** *relation to the given triangle,* ***may contribute samples*** *that fall within the given triangle")*;

surrounding the object with a bounding box *(in figure 13E where a bounding box is shown);*

determining if the bounding box covers any of the sampling points *and*
culling the object if the bounding box misses all of the sampling points *(col 29, lines 27-33, "If the slopes m.sub.13 and m.sub.23 are the same, then the triangle is degenerate (i.e., with* <u>*no interior area*</u>*). Degenerate triangles can be explicitly* <u>*tested for and culled*</u>*, or, with proper numerical care, they may be forwarded to succeeding rendering stages* <u>*as they will cause no samples to render*</u>*". In this instance, the bounding box of the triangle or area of the triangle is used to determine whether the area or box covers any samples)*;

testing each sampling point against each edge of the object if the bounding box does not miss all the sampling points *(col 30, lines 10-14, "Determination of Samples Residing Within the Triangle ... As described above, in step 222 rendering unit 150A may determine which of the third-stage sample positions reside within the triangle being rendered" and col 30, lines 56-58, "Rendering unit 150A may perform inequality testing on the third-stage sample positions as described above for all three edges of the given triangle");*

culling the object if the object does not cover any sampling points *(col 30, lines 58-62, "If a sample position lies on the accept side (i.e. the interior side) of all three edges, it is in the interior of the triangle, and rendering unit 150A may set a VALID bit for the sample position. Otherwise, the VALID bit may not be set" where according to the reference, sampling points that do not fall in the area of the object are not marked valid. Thus, according to the description for the rendering unit 150A, the object will not be rendered, and thus culled, if there are no VALID bits at all. This is because the rendering unit requires a VALID sampling point to render the object, and thus if none are present, the object is not rendered, i.e. see col 32, lines 39-42, "Rendering unit 150A may compute ordinate vector H.sub.S for a sample only if the sample is inside the triangle as indicated by the sample VALID flag" and col 35, lines 11-13, "Rendering unit 150A may also comprise a sample evaluation unit SEU to compute ordinate values C.sub.S for each valid sample S in the candidate bins").*

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Redshaw with Deering. Deering teaches one advantage of the combination *(col 21, lines 37-41,*

"rendering unit 150A may determine the candidate bins by computing a minimal bin bounding box, i.e. a minimal rectangle of bins which efficiently contains the triangle bounding box"). Redshaw is modified to incorporate Deering by applying the samples to the minimal bin bounding box of tiles in figure 13 of Deering to the bounding box of tiles in figure 6 of Redshaw.

As per claim 2, Redshaw does not explicitly teach the remaining claim limitations.

Deering teaches the claimed:

2. A method according to claim 1 including the step of determining whether or not the separation of the sampling points in the x and y directions exceeds the resolution of the display; and adding or rejecting the object from the list in dependence on the result of the determination *(col 9, lines 55-63, "**samples may be filtered** to form each pixel ordinate value ... Sample buffer 162 may be configured ... **sub-sampling with respect to pixel resolution** . In other words, **the average distance between adjacent samples** in the virtual image (stored in sample buffer 162) **may be smaller than, equal to, or larger than** the average distance between adjacent pixel centers in virtual screen space" where the filtering can be the removal of objects smaller than a given pixel separation distance).*

It would have been obvious to one of ordinary skill in the art to use the determination of separation with Redshaw in order to improve the quality of display and eliminating unneeded objects that are too small to view.

As per claim 3, Redshaw does not explicitly teach the claimed limitations.

Deering teaches the claimed:

3. A method according to claim 2 in which the resolution of the display comprises the pixel separation of the display *(col 9, lines 56-57, "**Pixel** ordinate **values** may be provided to one of more of **display devices**" and col 9, lines 59-63, "In other words, the average distance between adjacent samples in the virtual image (stored in sample buffer 162) may be smaller than, equal to, or larger than **the average distance between adjacent pixel centers** in virtual screen space").* It would have been obvious to one of ordinary skill in the art to use the resolution with Redshaw. The motivation of claim 2 is incorporated herein.

As per claim 5, Redshaw teaches the claimed:

5. The method according to claim 1 further including the step of, for each object, selecting only those rectangular areas which fall at least partially within the object's bounding box when determining whether or not that object is to be added to the list for a rectangular area *(in figures 7a-7d, where only the shaded rectangular areas around the bounding box of the object are considered for adding to the list and lines 28-31, "For each edge of the triangle, **each tile in the rectangular bounding box** must be processed in this way **to decide whether or not it should be excluded** from the minimal set").*

As per claim 19, Redshaw does not explicitly teach the claimed limitations.

Deering teaches the claimed:

19. The method according to claim 1 including the step of determining whether or not the sampling points are spread by more than 1 x 1 pixel and not testing the object for culling if the sampling points exceed this limit *(col 9, lines 55-56, "**samples may be filtered** to form each pixel*

ordinate value" where this filtering can be eliminating samples from objects not large enough to form a single 1x1 pixel).

It would have been obvious to one of ordinary skill in the art to use the sampling points of 1x1 pixel with Redshaw in order to speed up the system by considering only objects large enough that can be seen on the display device.

As per claims 10-12, 14, and 20, these claims are similar in scope to claims 1-3, 5, and 19, respectively, and thus are rejected under the same rationale.

3. Claims 6, 7, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redshaw et al. (GB Patent 2,343,603) in view of Pearce et al. (US Patent 5,809,219).

As per claim 6, Redshaw teaches the claimed:

6. A method for shading 3-dimensional computer graphics images *(in the abstract, 1st sentence, "A method and apparatus for shading 3-dimensional computer generated images")* comprising the steps of:

subdividing a display for an image into a plurality of rectangular areas *(in figure 6 where a grid of areas is shown)*;

for each object in the image determining a bounding box of rectangular areas into which the object may fall *(pg. 8, lines 7-11, "A **bounding box for a particular object** can be aligned to tile boundaries so that a list of tiles within the bounding box can then be obtained. This list of tiles is*

a subset of all the tiles within the screen and ***approximates the tiles which intersect with the object****")*;

inserting the object in an object list for a rectangular area in dependence on the result of the determination *(lines 28-31, "For each edge of the triangle, each tile in the rectangular bounding box must be processed in this way* ***to decide whether or not it should be excluded*** *from the minimal set" where this excluding implies that tiles not excluded would be inserted into the list where the object does not appear, also see figure 5 which shows the tile and object list association)*;

Redshaw does not explicitly teach the remaining claim limitations.

Redshaw suggests the claimed:

Wherein the step of testing edge information includes the step of shifting the edge information by a predetermined amount in dependence on the orientation of each edge *(pg. 13, lines 23-27, "****The comparison of the two values*** *will indicate whether the point lies on the inside or outside of the edge.* ***The interpretation*** *of this result* ***depends on the orientation of the edge*** *is given in the table in Figure 9").*

It would have been obvious to specific use shifting by a predetermined amount with this teaching of Redshaw in order to simplify mathematic operations. The modification can be achieved by implementing the shifting to the edge equation shown on page 13, line 18, where for example, vertical shifting can be achieved by changing the value of "c".

Pearce teaches the claimed:

testing edge information from each object against a consistent sample point in each rectangular area to determine whether or not the object falls into each of the rectangular areas in the bounding box *(col 4, line 62 - col 5, line 2, "Within this projected 2D space, the present invention identifies the segments of time during which a sampling point is inside a moving polygon. More specifically, the present invention* ***intersects a stationary sampling point with the moving edges of a polygon****.* ***Each of the edges*** *of the polygon* ***are examined independently****. In this examination, the intersection point on the edge of the polygon and the time of intersection are determined" where the moving edges can be shifting);*

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Redshaw with Pearce in order to simplify the mathematics by having only a stationary point rather than one that moves. For example, this may be useful for rendering games where a small number of polygons on the screen are moving quickly, and thus, it may be easier to keep the sampling points stationary (where their are many more) than keeping the polygons stationary. This may result in improved performance. Redshaw is modified to incorporate Pearce by incorporating the edge test and sample points of Pearce into the tile-bin rendering system of Redshaw. For example, for applying sampling rendering positions inside the shaded tiles in the triangle in figure 6 of Redshaw. In this modification, the edges of the triangle in figure 6 of Redshaw would be moved to a stationary sample point in a tile for testing.

As per claim 7, Redshaw does not explicitly teach the claimed limitations.

Pearce teaches the claimed:

7. A method according to claim 6 in which the step of shifting edge information comprises shifting by either the vertical or horizontal dimension of a rectangular area *(in figure 1 which shows motion vectors associated with an edge that is shifting and col 4, lines 57-59, "one or more polygons (not shown) on object 430 are matched to the x,y coordinates of sample points 402,404" thus the motion vectors can move the edges in x (horizontal) or y (vertical) coordinate dimensions)*.

It would have been obvious to one of ordinary skill in the art to use the shifting with Redshaw in order to simply the mathematics of the shifting process by adding or subtracting from the x and y coordinates of edge data.

As per claims 15 and 16, these claims are similar in scope to claims 6 and 7, respectively, and thus are rejected under the same rationale.

4. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redshaw et al. (GB Patent 2,343,603) in view of Pearce et al. (US Patent 5,809,219) in further view of Vatti et al. (US Patent 5,265,210).

As per claim 8, Redshaw does not explicitly teach the claimed limitations.

Vatti teaches the claimed:

8. A method according to claim 7 in which the shifting step is performed using a floating point calculation *(col 11, lines 34-36, "The* ***addition*** *of the* ***delta scaled values to the coordinates*** *of*

the address of the just-plotted pixel is accomplished ***in floating-point format*** *" where this delta can be used in the shifting process as well).*

It would have been obvious to one of ordinary skill in the art to combine Redshaw, Pearce, and Vatti in order to properly calculate non-integer values that occur in the edge processing, such as edge slope values. Redshaw is modified by Vatti by applying the floating-point format to the vertices and sample coordinates in Redshaw for storing and performing mathematical operations.

As per claim 17, this claim is similar in scope to claim 8, and thus is rejected under the same rationale.

5. Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redshaw et al. (GB Patent 2,343,603) in view of Pearce et al. (US Patent 5,809,219) in further view of Venkataraman et al. (US Pub 2002/0180729).

As per claim 9, Redshaw does not explicitly teach the claimed limitations.

Venkataraman teaches the claimed:

9. A method according to claim 6 in which the shifting step is performed with a safety margin whereby objects will be included in object lists for a rectangular area if the edge information falls close to a sampling point *(paragraph [0072], "****Cross Edge Detection****" and [0075], "The circularity can be tested by picking three points on the cross edge and* ***then checking if the sample points lie on a circle, within a tolerance****" where this technique can be applied to an*

edge of an object to be used with the object list of Redshaw and where the tolerance can be similar to a safety margin).

It would have been obvious to one of ordinary skill in the art to combine Redshaw, Pearce, and Venkataraman in order to give better edge and sample intersection results by using a comparison test which allows a bit of tolerance. Redshaw is modified to incorporate the safety margin of Venkataraman by applying the tolerance to the edges of the triangle in figure 6 of Redshaw during testing against sample points.

As per claim 18, this claim is similar in scope to claim 9, and thus is rejected under the same rationale.

Response to Arguments

1. Applicant's arguments filed 7/25/2008 have been fully considered but they are not persuasive.

Applicant argues:

> The Deering reference, like the Redshaw et al reference, is concerned with determining a minimum number of bins or tiles which are rendered comprising tracing along the edges of the triangle to determine the extremity of the ideal tiles to reduce the number of tiles that are processed. Like the previously discussed reference, this reference has no disclosure with respect to determining whether a particular object should be rendered by performing a two-step evaluation. The fact that some ancillary object may be deleted through the elimination of tiles which do not contain the subject object does not read on the presently claimed invention. Therefore, Deering in combination with Redshaw et al does not even present a showing of prima facie obviousness under 35 USC 103(a) with respect to the presently claimed invention.

> (bottom of page 10 and top of page 11 in filed response).

The examiner respectfully maintains that the rejections are proper because the Deering does teach some of the claimed aspect. Not all the claimed aspects are taught individual in neither Redshaw nor Deering. However, when taken together aspects of the two-step evaluation are taught as outline above. For example, Redshaw is relied upon for showing of list of objects and subdividing. Deering is relied upon for teaching of sampling and culling. Both Redshaw and Deering have bounding boxes present. In the rejection in this office action, each claimed step of the method claim 1 is mapped to specific instances in the references where the respective claimed feature is taught in the prior art. Thus, the combination of the Redshaw and Deering provides a prima facie showing of obviousness.

> Applicant remarks:
> The presently claimed invention does not have the edges moving through time, the edges of the polygon are adjusted only once during the initiation phase with the amount of adjustment depending on the orientation of the edge. A sampling of the shift triangle at the corner of the tiles determines whether the original triangle has any intersection with the tile. Applicants respectfully submit the Examiner is choosing bits and pieces out of the Pearce reference and combining it with the Redshaw et al reference by excluding the teachings of the Pearce et al reference as a whole. Given the differences in the processes of Pearce and Redshaw et all one of ordinary skill in the art would not attempt to combine the teachings of the references as put forth by the Examiner and only hindsight provided by the present disclosure is motivating the Examiner to do so. Therefore, Applicants respectfully submit that the presently claimed invention is clearly patentably distinguishable over Redshaw et al in combination with Pearce.
> (bottom of page 11 and top of page 12 in filed response).

In this instance, the examiner respectfully believes the rejection statement is proper for the following reasons: Pearce teaches of examining an edge of a polygon using a sampling point. In

this office action, a triangle (polygon) is shown with edges in figure 6. One of ordinary skill in the art would recognize that tiled areas on the screen often use sampling points in conjunction with polygons to render images. Often one such requirement of the rendering is determination of edges in a polygon. For example, the edges many be needed to determine the extend of an object during the rendering process. One of ordinary skill in the art may look to another reference in the computer graphics field that has a polygon and sample point comparison test. Pearce has a sampling point and edges of a polygon which are examined. For example, Pearce teaches the following: *(col 4, line 62 - col 5, line 2, "Within this projected 2D space, the present invention identifies the segments of time during which a sampling point is inside a moving polygon. More specifically, the present invention* ***intersects a stationary sampling point with the moving edges of a polygon****.* ***Each of the edges*** *of the polygon* ***are examined independently****. In this examination, the intersection point on the edge of the polygon and the time of intersection are determined" where the moving edges can be shifting).* Pearce overall is directed towards generating motion blur. However, the motion blur does not take away the fact that a sampling point and edge examination is performed. It would have been obvious to one of ordinary skill in the art at the time of invention to combine Redshaw with Pearce in order to simplify the mathematics by having only a stationary point rather than one that moves. For example, this may be useful for rendering games where a small number of polygons on the screen are moving quickly, and thus, it may be easier to keep the sampling points stationary (where their are many more) than keeping the polygons stationary. This may result in improved performance. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a

sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Redshaw is modified to incorporate Pearce by incorporating the edge test and sample points of Pearce into the tile-bin rendering system of Redshaw. For example, for applying sampling rendering positions inside the shaded tiles in the triangle in figure 6 of Redshaw. In this modification, the edges of the triangle in figure 6 of Redshaw would be moved to a stationary sample point in a tile for testing.

Applicant's remaining arguments have also been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel F. Hajnik whose telephone number is (571) 272-7642. The examiner can normally be reached on Mon-Fri (8:30A-5:00P).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka J. Chauhan can be reached on (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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